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Briefing Report to the Chairman
Committee on Armed Services, House of
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RESERVE COMPONENTS

COMPLETED

11.

Alternatives for Equipping the Army's Reserve Components





UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

NATIONAL SECURITY AND
INTERNATIONAL AFFAIRS DIVISION

December 31, 1985

B-221481

The Honorable Les Aspin
Chairman, Committee on Armed Services
House of Representatives

Dear Mr. Chairman:

This responds to the House Armed Services Committee report on the Defense Authorization Act, 1986 which directed the General Accounting Office to examine alternatives to the current Department of Defense method of determining the priority for allocating equipment to the reserve components. As your office agreed, we limited our examination to the Army's reserve components--the U.S. Army Reserve and the Army National Guard.

We focused primarily on determining if there was a way to achieve a higher rate of readiness through the distribution of new equipment. We developed and examined two alternatives which incorporated readiness and cost factors as a means to establish the order in which units should be equipped. The readiness alternative would modify the Army's equipment distribution system to reflect the readiness condition of units reported by the Unit Status Report rating system. This rating system provides one indicator of Army readiness and is a measure of the peacetime availability and status of a unit's resources. The readiness-cost alternative would modify distribution priorities based on both readiness and the cost required to obtain an improvement in readiness. Our findings are summarized below and are discussed in detail, along with our objective, scope, and methodology, in appendix I.

The Department of the Army Master Priority List (DAMPL) establishes an order of precedence for the allocation of resources during peacetime and the early days of mobilization and deployment. The DAMPL is developed based on a combination of operational plan requirements, unit mission essentiality, and unit relationship to force structure. In general, the DAMPL sequence number indicates relative mission essentiality and, for deployable units, a deployment timeframe. The deployment date is generally the primary factor used to assign the DAMPL sequence number.

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Our examination of the two alternatives indicated that more units could immediately increase their overall readiness and that it would cost less to accomplish this than by using the DAMPL based process. In addition, equipping units in DAMPL sequence did not always ensure that the earlier deploying units were the first to be equipped. A listing of the type and number of units included in our analysis of each alternative examined is in appendix II.

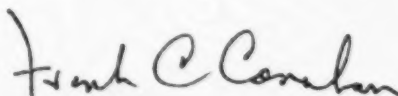
Both of the alternatives we considered provide distinct improvements in readiness and the Army should be able to implement them without causing major changes in operational plans. The alternatives would involve a modification of the DAMPL-based process and procedures, not a replacement of the DAMPL system. Each alternative considers equipping units only of the same type (for example, infantry or artillery units) and, therefore, is not applicable for establishing priorities between different type units.

There are some potential problems associated with using either of the alternatives. There could be a need to change the wartime alignment of some reserve units to correct obvious mismatches between a unit's readiness status and its assigned mission and deployment date. Also, because the Unit Status Report rating does not identify units which are using substitute equipment rather than required new equipment, some units' relative equipment status is incorrect.

As requested by your office, we did not obtain official agency comments on this report. However, we have discussed its contents with Department of Defense and Army officials. We are sending copies of this report to the Senate Committee on Armed Services; the House and Senate Committees on Appropriations; the Secretaries of Defense and the Army; and other interested parties upon request.

If we can be of further assistance, please let us know.

Sincerely yours,


Frank C. Conahan
Director

ALTERNATIVES FOR
EQUIPPING THE ARMY'S RESERVE COMPONENTS

BACKGROUND

In recent years the Army has increased its reliance on the U.S. Army Reserve (USAR) and the Army National Guard (ARNG) to perform critical combat and support missions. Currently, 48 percent of the Army's combat units and 70 percent of the combat support and combat service support units are provided by these reserve components. However, equipment shortages limit the combat readiness of USAR and ARNG units. More than 90 percent of the USAR and ARNG units which the Army recently classified as not combat ready under a European war scenario were in this category because of equipment shortages.

The Army is accelerating its efforts to equip the reserve components to enable them to train, and, if necessary, fight with equipment comparable to that of the active Army. Over the next 6 years, the Army plans to spend more than \$12 billion for new equipment specifically for the reserve components; however, it projects continuing equipment shortages. For example, only 10 percent of the required USAR combat engineer vehicles are expected to be on hand by fiscal year 1988. The Army's present focus is on improving the status of noncombat-ready units with a particular emphasis on correcting equipment-related readiness problems.

The Department of Defense policy for establishing priorities for equipping the reserve components is "first to fight, first to be equipped." The Army implements this policy through the Department of the Army Master Priority List (DAMPL) which designates a priority sequence for allocating resources during peacetime and the early stages of mobilization and deployment. DAMPL sequence numbers are assigned to units based on a combination of factors including (1) operational plan requirements, (2) force structure and (3) mission needs. In general, the sequence number indicates mission essentiality and, for deployable units, a deployment time frame. A single DAMPL sequence number often includes many different type units with equal priority for resource allocation.

The Army reviews the DAMPL annually and makes revisions to reflect changes in operational plans or for special priorities such as the activation of a new division. For example, in order to expeditiously equip the new, light infantry 10th Mountain Division, the Army assigned it a sequence number which will allow it to receive equipment ahead of earlier deploying units.

OBJECTIVE, SCOPE, AND METHODOLOGY

Our objective was to examine the advantages and disadvantages of alternative approaches to the current system of allocating equipment to USAR and ARNG. The purpose was to determine whether there were alternative approaches which would result in greater improvements in readiness. We examined two alternatives to the Army's current DAMPL system for establishing the order in which units receive equipment. One alternative used readiness and the other was based on readiness-cost factors to establish relative priorities among units of the same type (for example, infantry or artillery units).

The readiness alternative would establish unit priorities based on the Army's Unit Status Report (USR) rating system. The USR provides combat readiness information (C-ratings) for deployable units. C-ratings seek to measure a unit's ability to perform wartime tasks by assessing the peacetime availability and status of resources possessed or controlled by the unit or its parent unit in four resource areas. These areas are (1) equipment and supplies on hand, (2) equipment condition, (3) personnel, and (4) training. An overall C-rating is the result of the individual unit's C-ratings in the four resource areas. Generally, this overall rating should not exceed the lowest individual rating obtained. There are five C-rating categories:

- C-1, Fully Combat Ready. A unit possesses its prescribed levels of wartime resources and is trained so that it can perform the wartime mission for which it is organized, designed, and tasked.
- C-2, Substantially Combat Ready. A unit has only minor deficiencies in its wartime level of resources or training.
- C-3, Marginally Combat Ready. A unit has major deficiencies in wartime resources or training which limit performance capability.
- C-4, Not Combat Ready. A unit has major deficiencies in wartime resources or training and thus cannot effectively perform its wartime mission.
- C-5, Service Programmed, Not Combat Ready. Due to service program(s), a unit does not possess the prescribed wartime resources or cannot perform the wartime mission for which it is organized, designed, or tasked. (For example, units undergoing major equipment conversion and/or transition).

The objective of the readiness alternative would be to equip first those units whose overall C-rating could be improved as a result of receiving additional equipment. Unit priorities would be established according to whether additional equipment would improve not only the unit's equipment-on-hand rating but also its overall rating.

The second alternative would establish unit priorities using both readiness and cost factors. The cost factor used would be the Army's estimate of the cost to improve unit equipment-on-hand ratings from C-4 to C-3. The objective of this alternative would be to first equip those units whose overall C-ratings could be improved at the least cost.

We used units grouped by Army Standard Requirement Codes (SRC) to compare the two alternatives with the DAMPL process. An SRC is comprised of like-type units within a branch, for example, transportation (medium truck) companies which have identical equipment and mission requirements. We selected 15 SRCs to (1) obtain a broad cross section of combat arms, combat support, and combat service support units, and (2) include many units for which information was available on the cost to improve equipment-on-hand ratings from C-4 to C-3. The SRC units in our analysis included Infantry, Artillery, Medical, Military Police, Transportation, and Ordnance. (See Appendix II.)

We next chose a sample of units from each SRC which could be equipped under the alternative processes. Units in each SRC sample consisted of only those (1) having European deployment missions and (2) whose scheduled deployment dates generally did not vary between units by more than 30 days. The number of units in the samples (1) represented at least 25 percent of the total number of units in each SRC and (2) provided a minimum 95 percent confidence level that sample results were representative of each SRC.

We then compared the DAMPL, readiness, and readiness-cost alternatives for determining unit priorities based on the following measures of effectiveness:

- total number of units whose overall readiness rating increased to C-3 when equipment-on-hand status was increased to C-3.
- total number of units having short-term potential to increase overall readiness ratings as a result of improvement in equipment-on-hand status,
- total number of early deploying units equipped, and
- relative cost of achieving specified readiness improvements.

In conducting our review, we met with National Guard Bureau officials and Department of the Army officials in the offices of the Deputy Chiefs of Staff for Operations and Logistics and the Office of the Chief of Army Reserve. We also met with officials from Headquarters, U.S. Army Forces Command; Headquarters, First and Second Armies; and National Guard State Headquarters in Georgia, New York, and North Carolina. We visited units in these states to discuss equipment distribution programs and readiness status. We reviewed readiness status reports, DAMPL instructions, and programs to improve equipment readiness in the reserve components.

READINESS ALTERNATIVE

Under the readiness alternative, we considered all four readiness resource areas and ranked sampled units within each SRC in descending order according to the relative effect that additional equipment would have on improving their overall C-ratings. Units were given the highest ranking if additional equipment would improve overall C-ratings. Conversely, if a unit's overall C-rating was constrained by a factor other than equipment (for example, personnel strength), it received a low ranking.

In order to establish a basis for comparison, we first selected those units in each SRC sample which were C-4 in equipment-on-hand status and which had the highest DAMPL priorities within the SRC. The total number of units selected in each SRC varied according to factors such as a natural break in deployment dates or DAMPL sequence numbers within the SRC. Using this methodology, 70 of the 187 sample units in the 15 SRC's would have been provided equipment. We then selected the same number of units in each SRC to be equipped using the readiness criteria. A comparison of the results obtained from these two approaches is summarized in Table I-1.

Table I-1

	<u>DAMPL</u>	<u>Readiness Alternative</u>
Number of units equipped	70	70
Number of units whose overall C-rating improved immediately to C-3	21	41
Number of units with good potential to improve overall C-rating to C-3	17	18
Number of early deploying units equipped	50	43

The use of relative readiness as a means to determine the priority in which units would be equipped yielded some interesting results and indications. Almost 95 percent more units showed an immediate improvement in readiness. This was because units whose low overall readiness was due to equipment shortages alone, would be equipped before units which had personnel or training deficiencies in addition to equipment shortages. This difference is also an indication that units with the highest priority DAMPL sequence are not necessarily the most ready units. Under the DAMPL alternative, the difference between the total number of units equipped and the number of early deploying units equipped reflects a certain inconsistency between DAMPL priority and deployment dates. For example, in the engineer battalion SRC, the relationship between DAMPL priority and deployment dates was the reverse of what one would expect. The five units with the earliest deployment date were assigned the lowest DAMPL priority.

Units having good potential to improve their overall C-ratings with additional equipment were those having only minor deficiencies in personnel or training which were not caused by low personnel strength and which could be expected to improve in the near term. There was no significant difference between the number of units in this category under either DAMPL or the readiness alternative.

In terms of the total number of units whose overall readiness was either potentially or immediately increased, the readiness alternative was superior. This alternative does, however, have some potential disadvantages. First, the fact that the USR system does not identify units which are using substitute equipment for required force modernization equipment which is not yet on hand, could result in an incorrect picture of the relative equipment status of some units. Second, the wartime alignments of some units might have to be changed to correct mismatches between a unit's readiness status and its deployment schedule and mission. For example, an early deploying unit whose overall readiness rating would remain C-4 even after receiving additional equipment, might be replaced by a unit whose overall rating could increase to C-3 with additional equipment. This could also cause an exchange of units between designated war time operational commands.

READINESS-COST ALTERNATIVE

Under the readiness-cost alternative we first ranked units in the same manner as the readiness alternative. We then reordered this ranking based on the least cost required to raise the equipment-on-hand status from C-4 to C-3. Available cost information, provided by U.S. Army Forces Command, was sufficient to consider only 9 of the 15 SRCs, representing a sample of 93 units, for this alternative.

We followed the same procedure discussed under the readiness alternative to establish a basis for comparison. We first selected the highest DAMPL priority units from the sample units in each SRC. Using this methodology, 34 of the 93 sample units in the 9 SRCs would have been provided equipment. We then selected the same number of units in each SRC to be equipped using the readiness and least cost criteria. In both cases, the equipment allocated is that required to raise each unit's equipment on-hand rating from C-4 to C-3. A comparison of the results obtained from these two approaches is summarized in Table I-2.

Table I-2

	<u>DAMPL</u>	<u>Readiness-cost alternative</u>
Number of units equipped	34	34
Cost to equip (millions)	\$18.24	\$16.73
Number of units whose overall C-rating improved immediately to C-3	6	17
Number of units with good potential to improve overall C-rating to C-3	5	9
Number of early deploying units equipped	31	29

The results are similar to those obtained using the readiness alternative. However, there are indications that the relative cost associated with raising equipment-on-hand status to C-3 should be a significant factor in establishing the priority in which units are equipped. As can be seen from table I-2, the readiness-cost alternative costs less than the DAMPL system to improve the readiness of almost three times as many units.

The readiness-cost alternative has the same disadvantages as the readiness alternative, discussed on page 5.

STANDARD REQUIREMENT CODE UNITS
USED TO COMPARE TWO ALTERNATIVES WITH DAMPL PROCESS

<u>Type unit</u>	<u>Number of units sampled</u>	<u>Total units in SRC</u>
Engineer battalions ^a	8	31
Combat support companies (maintenance)	19	48
Transportation companies	13	25
Psychological operations companies ^a	8	12
Signal battalions	10	15
Military police companies ^a	10	30
Field artillery battalions	17	21
Combat support companies (light maintenance) ^a	10	21
Ordnance companies ^a	10	11
Mechanized infantry battalions	19	24
Combat support hospitals ^a	13	15
General hospitals ^a	15	27
Supply and service companies ^a	9	36
Petroleum supply companies ^a	10	25
Armor battalions	16	46

^aSRC units used for readiness-cost alternative.

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